

THE LOGICAL VERIFICATION OF THE



IAN GODDARD

*"A human being is a part of the whole, limited
in time and space. He experiences himself as
something apart from the rest — a kind of
optical delusion of consciousness.*

*This delusion
is a kind of prison for us.
Our task must be to free
ourselves from this prison."*

*"The distinction between
past, present, and future
is only a stubbornly
persistent illusion."*

ALBERT EINSTEIN

© 1994 IAN GODDARD. This publication may be quoted, or copied in part or in whole and distributed at cost without permission *only* so long as full credit is given to the author. For more copies, information, or inquiries please contact:

Neutral Mechanics Research Center
11913 Renwood Lane, Rockville, MD 20852-4342, USA

INTRODUCTION

The mystical experience, which is sometimes called "cosmic consciousness," is an experience wherein the boundaries that divide all things into separate entities dissolve and all things appear to be unified.

It is the division of reality into separate entities that forms the structure of space and time. Consequently, the dissolution of these entities results in the dissolution of space and time. Is this experience of the nullification of space and time valid or is it simply a hallucination?

This publication presents proof that the descriptions of reality arising from the mystical experience are valid. In the process, a seamless interface between the traditionally antagonistic schools of logical positivism and mysticism is established.

Logical positivism, which establishes the necessary basis of rational thought and communication, is based upon the principle that the truth is known only through objective physical measurement and logic. Mysticism is based upon the premise that the truth is known only through the mystical experience of "union with god," or yoga. There is no conflict here *if* and only if we can establish that the descriptions of reality arising from the internal mystical experience are consistent with objective physical measurements. The analysis presented in this short text establishes precisely this.

What is the "Mystical" Experience?

There are many experiences that may be called "mystical." The goal is to establish the qualities of these experiences that are distinct from normal experience. Some experiences which may be called "mystical" are not entirely distinct from normal experience. For example, if I say "I hear the voice of god," or "I see angels," this may be called a mystical experience; yet, the hearing of voices or seeing of visions, true or false, are descriptions of data *in* space and time. In this context they are not truly distinct from normal experience.

What defines the mystical experience as a truly unique experience are the descriptions of reality arising from it that transcend the space-time dimensions of normal experience. In the full mystical experience the perception of space and time, of here and there, of now and then, of this and that, of self and not-self, is totally swept away.

During the mystical experience the boundaries which normally segregate our universe into distinct and separate entities dissolve. It is these separate entities and their relative motion that form the structure of space and time. So when these separate entities cease to be separate entities, the structure of space and time must dissolve: here becomes there, then becomes now, external becomes internal, all things become equivalent, and consciousness expands without limit.

Thus, while normal experience is an experience of separate entities in space and time, the mystical experience is an experi-

ence of the abolition of all separations and consequently of all space and time.

The perception of reality during the mystical experience that identifies the mystical experience as unique can be summed up as follows:

The abolition of all divisions

- Abolition of space: here and there unify
- Abolition of time: now and then unify

Criteria for Proof

During the mystical experience it appears that there is in reality no space or time, and that all differences are equivalent.

If this is the absolute truth, it must be unconditional. If unconditional, we must be able to confirm this truth claim via physical measurements even outside the mystical experience. If it cannot be confirmed in this fashion, logic dictates that the mystical experience of no space-time is an illusion. What then are the necessary criteria for establishing logical confirmation?

As the mystical insight is that there is *no space and no time*, confirmation simply requires proof that:

- Space = 0
- Time = 0

To prove that space and time equal zero we must prove that space and time are *symmetrical*. If space and time are symmetrical, the equal but opposite components of this symmetry must neutralize each other so that the total calculation, the net sum, of all calculations of space and time must always equal zero.

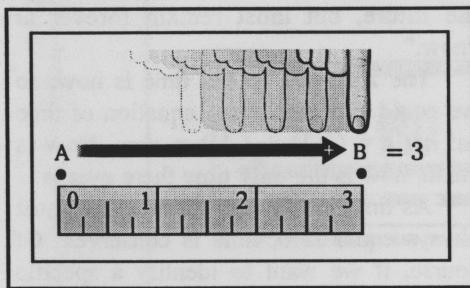


Symmetry of Space

Space is the distance between *two* points.

Space is confirmed and measured by *motion* from point *A* to point *B*. Because motion is the measure of space, the natures of space and motion are equivalent.

As motion is the measurement of space, when we measure space our measurement starts at point *A* and moves through space to point *B*, as illustrated.



Describing this motion as a vector,* our process of measurement is expressed as $A \rightarrow B = 3$ units of space.

At this point tradition assumes this measurement of space is complete, so it would be said that this space = 3 units, period. This assumption is shortsighted.

At this point the mathematical description of our measurement of space is asymmetrical, even though the nature of the motion that *is* the measurement of space is *symmetrical*, as will be shown. So, if the process of the measurement of space is symmetrical, but our description of this measurement is asymmetrical, logic dictates that our description is *incomplete*.

How is this motion symmetrical? Due to the fact that it is *relative*. As Albert Einstein observed, "Every motion must be considered only as a relative motion." And relative motion is symmetrical.

What the relativity of motion means is that motion is not the private property of a single point of reference, such as *D*, but is a *common property* of all the points of reference relative to which *D* is measured as a point in space and time.

Therefore, as the motion of the finger marking the course of the measurement of space in our illustration is relative to the ruler, the ruler is *also* in motion relative to the finger. The motion of the ruler is equal but opposite, i.e., symmetrical, to the motion of the finger.

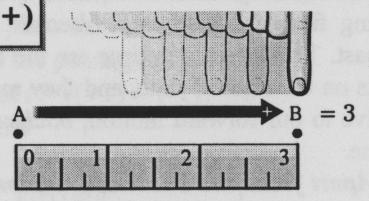
As the motion that *is* the measurement of space is symmetrical, the logical description of the measurement of space must also be symmetrical. Any other description is less than complete.

As the measurement of space is symmetrical, the complete description of the measurement of the space illustrated is:

$$\text{space} = ((A \rightarrow B = 3) + (A \leftarrow B = -3)) = 0$$

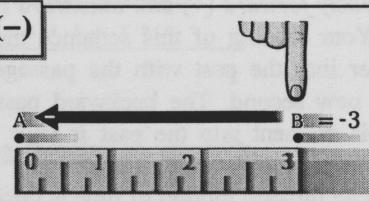
space measure = (+) & (-)

(+)



as relative motion is symmetrical, (+) is also (-)

(-)



$$\text{net measure} = ((+3) + (-3)) = 0$$

* Which describes the magnitude and direction of this motion.

Symmetry of Time

Time is the continuous and irreversible motion from point *A* to point *B* in the changing relation of physical entities.

The direction of the motion of time is traditionally described by an arrow pointing from past to future. As this "arrow of time" points in only one direction, time is thought of as being asymmetrical.

However, motion through the dimension of time — the fourth dimension — is mechanically equivalent to relative motion through space. So, just as relative space-motion is symmetrical, relative time-motion must also be symmetrical.

Describing the symmetry of space-motion, Einstein observed that as you fall down to the Earth (-), it is equally true that the Earth rises up to you (+). This space-motion is mechanically equivalent to time-motion: as you move toward point *x* in the future (+), it is equally true that point *x* moves toward you (-).

Our forward motion toward the future is measured only relative to points in time moving from the present *backwards* into the past. These points in time are the hash marks on the ruler of time, and they move, relative to our forward motion, *backwards* in time.

Apart from the backward motion of points of reference into the past, there could be no measure of a forward motion of time. Time-motion is therefore simultaneously forward (+) and backward (-).

Your reading of this sentence moves further into the past with the passage of each new second. The backward passage of this moment into the past *is* your forward motion toward the future.

The forward motion of time is positive time ($+t$), the backward motion of time is negative time ($-t$). As time is both ($+t$) and ($-t$), net time, or total time, is ($+t$) + ($-t$).

With the logical and necessary symmetry of time flow established, the proper calculation of the passage of each second of time (t) is: we have just advanced one (+1) second into the future; the nature of this advance was the passage of one (-1) second into the past, thus:

$$\text{net } t = ((+1) + (-1)) = 0$$

Each step forward in time is simultaneously a relative step backwards, and thus the observer can never actually reach the future, but must remain forever at "now."

The zero sum of net time is now, so we could express the net equation of time as: $\text{net } t = ((+1) + (-1)) = \text{now}$. Now is static; now is the only time there ever is.

As time is symmetrical and thus must always equal zero, time is conserved. Of course, if we want to identify a specific point in space-time, we would do so by asymmetrical calculation. We do this by the exclusion of negative space- and time-motion from our calculation.

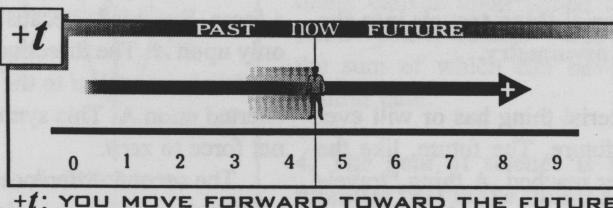
But, if we want to know the nature of the whole we must include the whole nature of space- and time-motion, which is positive *plus* negative.

Conclusion

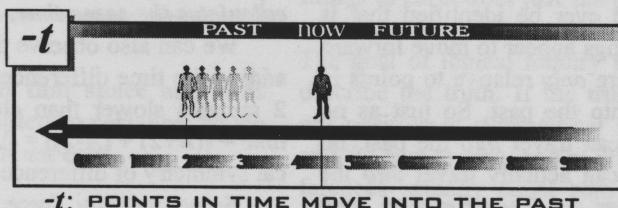
What was required to be proven — that space and time are symmetrical and thus equal zero — has been proven. By proving that space and time equal zero, all measurements of all physical phenomena are neutralized to zero, as space and time are the basis of all physical measurements.

As the total measure of space and time equals zero, logic clearly dictates that the claim arising from the mystical experience — that there is no space and no time — is true. The mystical experience is therefore the experience of the truth.

time flow = $+t$ & $-t$

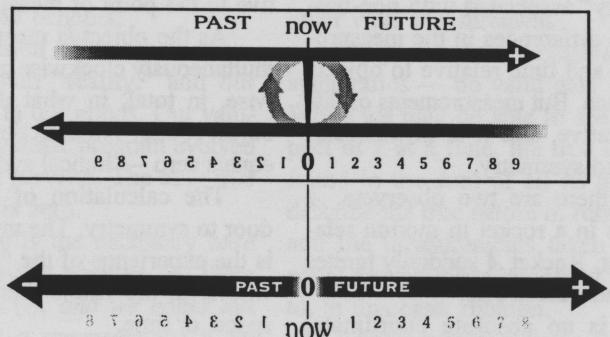


as relative motion through space and time is symmetrical, $(+t)$ is also $(-t)$



$$\rightarrow \text{net } t = ((+t) + (-t)) = 0 \leftarrow$$

The passage of time (t) is properly calculated as follows:
we have just advanced one (+1) second into the future;
the nature of this advance was the passage of one (-1)
second into the past, thus: $\text{net } t = ((+1) + (-1)) = 0$
Zero = now



NOW IS THE SYMMETRY OF TIME

IAN GODDARD

Counter Arguments

1. While material things travel into the future, no material thing travels into the past. This is an asymmetry.

Wrong: No material thing has or will ever travel *into* the future. The future, like the horizon, is never reached. A thing “travels into the future” only relative to point *x* in the past, when we assume point *x* in the past is now, which it is not.

All material things are always at *now*. No thing could ever be identified that is not at now. Things appear to move forward toward the future *only* relative to points in time moving into the past. So just as no material thing can travel *into* the past, no material thing can actually travel *into* the future. *All things are forever at now, with the appearance of forward and backward motion radiating symmetrically from now. Now is the symmetry of time.*

The bottom line is that the experience of things moving forward in time IS (=) the backward motion of points in time into the past. There is no asymmetry.

2. Nonuniform motion is asymmetrical and therefore cannot equal zero.

The “asymmetry” associated with non-uniform motion is differences in the measurements of force and time relative to objects in uniform motion. But measurements of difference are relative, and it is in this relation that we find symmetry.

Analysis: there are two observers, *A* and *B*. Each is in a rocket in motion relative to the other. Rocket *A* suddenly ignites its thrusters and accelerates.

As there is no absolute coordinate,

both A and B move away from the other faster; thus the velocity of *A* and *B* is still symmetrical. Yet there are differences.

The first difference is that only *A* feels a force. But this is because force is exerted only upon *A*. The direction of the force felt by *A* is *symmetrical* to the propulsive force exerted upon *A*. This symmetry neutralizes net force to zero.

The second difference is that *A*’s clock is found to have run slower when it is brought side by side with *B*’s clock. *But when each observer calculates net time, as previously described, each observer calculates the same time, i.e., zero.*

We can also observe this symmetry by adding the time differences: if clock *A* ran 2 minutes slower than clock *B*, then *net time* = $((B+2) + (A-2)) = 0$. This is the logical symmetry of difference.

So net velocity, force, time, and therefore acceleration all equal zero.

What about rotation?

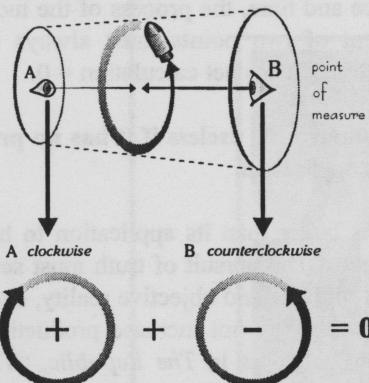
Rotation is said to be absolute motion not relative, because the rotation of an object can be measured free from external coordinates. But rotation is still symmetrical.

As the illustration demonstrates, while rotational motion may be absolute, the measurement of the direction of rotation is relative to the point of measure.

As the object is measured to rotate simultaneously clockwise and counter-clockwise, in total, in what direction does the object rotate? No direction, for net rotation equals zero — logical symmetry.

The calculation of the “net” is the door to symmetry. The mystical experience is the experience of the “net,” which is the whole. In the whole there is no direction, space, or time.

net rotational symmetry



3. The conclusion that space and time equal zero contradicts experience, which dictates that they must exist.

Net momentum equals zero, yet momentum "exists." The fact is that zero is the necessary basis for the experience of space-time.

Just because x is an illusion does not mean x is not "real," for to be real is primarily to be experienced. Secondarily, experienced things are real due to our valuation of them.

If I valued all things equally, even pleasure and pain, nothing would seem or be real. It is only when I grasp for x and run from y that the world becomes endowed with "real" costs and benefits.

It is our valuation of things that endows experience with "reality," and our valuations are only in our minds. Our valuations are simply a genetic program evolved to maximize human survival. The only true and absolute value is zero.

This zero value is the necessary base of all values. For every positive (+) there must be a negative (-), and we could not have a (+) without a symmetrical (-). So

in the final analysis — the net equation — everything must always equal zero. This zero sum is the whole, and the whole is the blank canvas upon which the "universal mind" paints endless value-filled worlds, the sum of which can never exceed the neutral base.

4. The goal of science is to define the qualities that make things separate from one another and to classify these differences. Yet *symmetries* — the logical system of net equation — by summing all things to zero, does just the opposite.

The goal of logical inquiry is to find and describe the truth. If the truth is that every positive is symmetrical to a negative and the sum is zero, and in this way all differences actually equal zero, then that is the truth.

Symmetries is a logical system that defines and describes the distinct analytical modalities of asymmetrical *exclusive* analysis and symmetrical *inclusive* analysis, or *symmetries*.

In asymmetrical exclusive analysis we describe an isolated frame of reference to the exclusion of all external data. Asymmetrical analysis would describe the above object as rotating *only* clockwise or *only* counterclockwise, to the exclusion of all other valid measurements.

In symmetrical inclusive analysis — *symmetries* — no valid data are excluded. While we may be able to see only one aspect of x at a time, the true nature of x is found in the sum of all its aspects. So to describe the true nature of rotation we must add the measurements taken from all, or equal and opposite, points of view relative to, in this case, rotation.

Asymmetrical analysis describes sys-



tems, i.e., frames of reference excluded from the whole. But if we apply the nonzero sum of an asymmetrical analysis to the whole, and assume that the whole is nonzero, we commit the blind man's error: confusing the part for the whole.

The ancient Indian tale of the blind men and the elephant is a lesson in symmetries: *the true nature of x is found in the sum of its parts*. It is in this fashion — summing the primary parts of the measurement of space and time — that symmetries automatically describes the true nature of space and time.

The central thesis of symmetries is that the fundamental nature of any measurement in space or time is binary, i.e., is composed of at least *two* points of reference. Any measure of space or time requires at least *two* points of reference. Due to the symmetry of space and time *motion*,

which is the process of the measurement of space and time, the process of the measurement of two points must always be symmetrical. Thus net calculation = 0.

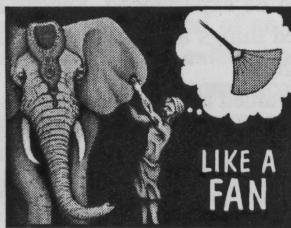
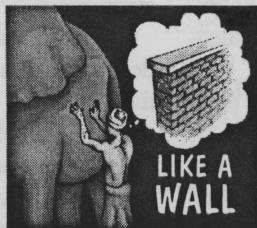
5. Symmetries is useless if it has no productive application.

Logic is larger than its application to human needs. The pursuit of truth must seek out the supreme and objective reality, even if that truth may not increase production. As Plato proposes in *The Republic*, "The knowledge at which geometry aims is knowledge of the eternal, and not of aught perishing and transient."

Symmetries automatically describes the nature of the supreme objective reality, the whole, or the eternal via *net* equation — the summation of the symmetrical components of measurement.

THE BLIND MEN'S ERROR

AN ELEPHANT IS . . .



Each is true in part, but false in the whole

**REALITY, LIKE THE ELEPHANT,
IS THE SUM OF ITS PARTS**

© 1994 IAN GODDARD





THE LAW

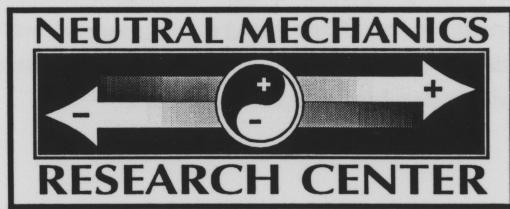
$$0 = \underset{\text{space time}}{((+))} + \underset{\text{space time}}{((-))} = 0$$

The law is eternal

The law is logic

The law is zero

Know the law



11913 RENWOOD LANE, ROCKVILLE, MD 20852-4342

Write for more info. or to acquire computer
animations that teach neutral mechanics.

igoddard@cap.gwu.edu

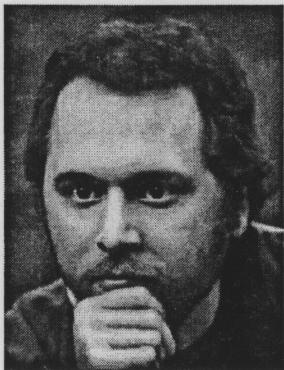


PHOTO BY ANDREW WILLIAMS

Ian Goddard is a natural philosopher and an artist. As he observes, "The objective of philosophy and art is identical. The aim in each case is the description of nature."

The Logical Verification of the Mystical Experience is the refined product of years of inquiry, meditation, and analysis of the mystical experience. Having first described his observations through art and poetry, Ian sought to discover a logical basis for the mystical experience. The result of this quest is the logical system known as *neutral mechanics*.

Describing his effort, Mr. Goddard says, "Traditionally the mystical experience is described by such claims as 'everything is nothing,' 'all is one,' 'god is love,' and so on. Without proof or logical basis, such descriptions are dismissed as nonsense. It is my belief that the primary mystical insight — that space and time are null — is not really so 'mystical,' but is entirely logical, and as such can be described mathematically." The proofs necessary to confirm this proposition are presented herein.